



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,931	12/14/2004	Fumio Yamakawa	262632US0XPCT	7387
22850	7590	03/15/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			RABAGO, ROBERTO	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 03/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/516,931

Applicant(s)

YAMAKAWA ET AL.

Examiner

Roberto Rábago

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kukes et al. (US 5,151,172).

The reference teaches in claims 1, 3, 5 and 6 a process for the hydrogenation of hydrocarbons in the presence of sulfur, comprising a supported catalyst comprising palladium and platinum in a weight ratio range of 5:1 to 1:2 and a quantity of 0.1 to 2% of each component, wherein the support comprises alumina. The claimed ratio of 2.5:1 to 3.5:1 amounts to approximately one-fifth of the range disclosed in the reference, and the claimed mass quantities are substantially coextensive with those disclosed in the reference; therefore, the claims are anticipated because one of ordinary skill in the art would immediately envisage the claimed ranges from those disclosed.

Applicant's arguments filed 12/30/2005 have been fully considered but they are not persuasive. Contrary to applicants' argument, the reference clearly states in patented claim 3 that the support comprises alumina. The fact that alumina is in admixture with another support component does not affect the rejection because the claims are not limited to a support which consists only of alumina.

### ***Claim Rejections - 35 USC § 103***

2. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kukes et al. (US 5,151,172) in view of Azuma et al. (US 4,540,480).

Art Unit: 1713

The parent claim is discussed with respect to Kukes above. Missing from Kukes is a disclosure to use the disclosed hydrogenation catalyst with petroleum resin. However, as shown in Azuma, the use of catalysts comprising supported Pt/Pd catalysts for the hydrogenation of such resins is well known in the art, and therefore one of ordinary skill in the art would be motivated to use the catalyst of Kukes for the hydrogenation of petroleum resins. Reasonable success would be expected, including hydrogenation of resins comprising sulfur, because both Azuma and Kukes have disclosed that such catalysts are effective in the presence of sulfur (Azuma col. 2, lines 40-64; Kukes claim 6).

Applicant's arguments filed 12/30/2005 have been fully considered but they are not persuasive. Argument is based upon the premise that Azuma does not teach the claimed metals ratio. However, Azuma was not relied on for its teaching of metals ratio. Kukes teaches all claimed limitations regarding the catalyst composition; Azuma was cited solely for its teachings that the use of catalysts comprising supported Pt/Pd catalysts for the hydrogenation of petroleum resins is well known in the art, and therefore one of ordinary skill in the art would be motivated to use the catalyst of Kukes for the hydrogenation of petroleum resins. Accordingly, the basis for combining the two references stands un rebutted, and the rejection is maintained.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1713

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

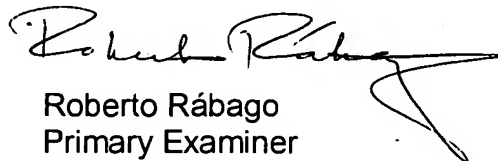
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
March 13, 2006